

### Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <a href="http://about.jstor.org/participate-jstor/individuals/early-journal-content">http://about.jstor.org/participate-jstor/individuals/early-journal-content</a>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

belonging to Carcharodon carcharias. On inquiry I was informed that they were secured from a shark caught on the New Jersey coast in the early part of June. The teeth were about an inch in height (including root), which would indicate a juvenile specimen of this species, 7 or 8 feet in length. This accords with the label accompanying the teeth, which said the shark was 7 feet long.

L. Hussakof, New York, N. Y.

[The editor has seen a mounted Carcharodon carcharias 7½ feet long taken off South Amboy, N. J., July 14, 1916, by Mr. Michael Schliesser, of 29 East 132d Street, N. Y.—J. T. N.]

# NOTES ON THE DISTRIBUTION OF THREE CALIFORNIA RAYS,

Plathyrhinoides triseriatus (Jordan and Gilbert).

A ray of this species was found washed up on the beach immediately north of Point Conception, on July 13, 1916. This is the northernmost record for this species.

#### Raja binoculata Girard.

A large specimen of this giant ray was noted on the beach between San Simeon and Piedras Blancas, in northern San Luis Obispo County. A small one, 192 mm. long, was taken from the stomach of a Rockcod, Sebastodes auriculatus, which was caught in about 60 feet of water off Pizmo Beach, on the southern coast of the same county. These two records are the southernmost for this ray.

#### ? Manta birostris (Walbaum).

Two rays were noted by the writer, several years ago, off the wharf at Redondo, in Los Angeles County. One was swimming near the surface, while the other was caught by hook and line. They measured

88 COPEIA

about four feet across the "wings," had cephalic fins, and lacked the serrated spine on the tail. The only record heretofore published on the Devil Ray in California was based upon the stories of fishermen of San Diego, and is given by Jordan and Evermann (Fishes of North and Middle America, 1896, I, p. 92). The present record is presented with the intention of corroborating the evidence of the occurrence of this or a related ray on the coast of Southern California.

CARL L. Hubbs, Stanford University, Calif.

## AMBLYSTOMA OPACUM ON LONG ISLAND.

To the records of adults published in COPEIA, July 1, 1914, nothing has been added.

Concerning the ova Mr. Deckert writes, COPEIA, March 24, 1916, that two egg masses containing living embryos were found, September 25, 1913, under bark in a dry pool near Silver Lake, White Plains, N. Y. The larvae hatched one day after having been placed in water. Observations made during the present season support this interesting and exceptional habit of fall ovulation for Amblystoma.

While searching for the ova of A. tigrinum on the Hudson Estate near Syosset, L. I., April 7th, we found larvae of A. opacum, 1½ to 1¼ inches long, in several of the temporary pools. It is obvious that these could not have developed and reached their present size from ova deposited in the same spring, since the pools were ice covered up to nearly April 1.

Sixteen of the larvae after having been placed in a laboratory aquarium developed a disease (white growth on gills) from which they recovered quickly after a small quantity of salt had been added to the water. They are feeding freely on earth worms, cut into small pieces, and measure, May 4th, 1¾ inches